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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/651,670

08/29/2003

Ralph M. Trksak

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11/19/2007

NATIONAL STARCH AND CHEMICAL COMPANY

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EXAMINER

MAHAFKEY, KELLY J

ART UNIT

PAPER NUMBER

1794

NOTIFICATION DATE

DELIVERY MODE

11/19/2007

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patents@nstarch.com

Office Action Summary

Application No.

10/651,670

Applicant(s)

TRKSAK ET AL.

Examiner

Kelly Mahafkey

Art Unit

1794

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 September 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The amendments made 9/27/07 have been entered.

Claims 1-24 remain pending.

Claim Rejections - 35 USC § 112

The previous 112 rejections have been withdrawn in light of applicant's amendments made 9/27/07.

Claim Rejections - 35 USC § 102

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1, 2, 8, 9, and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Hanchett et al (US 2002/0102344 A1). The references and rejection are incorporated herein and as cited in the office action mailed June 28, 2007.

Specifically regarding the newly added limitation that the starch is capable of forming a gel with a strength of at least 30 grams after 5 hours, Hanchett does not explicitly teach that the starch is capable of forming a gel having a gel strength of at least 30 grams within 5 hours from preparation, however, since the sago starch product as taught by Hanchett is produced by a substantially identical process as the product recited in the instantly claimed product by process, it reasonably appears to be identical or only slightly different than the instantly claimed product. Thus, the starch as taught by Hanchett would be inherently capable of forming a gel having a gel strength of at least 30 grams within 5 hours from preparation absent any clear and convincing arguments and/or evidence to the contrary.

Specifically regarding the newly added limitation that the Brabender viscosity is measured by rapidly heating to 50C and then further from 50-95C at a heating rate of 1.5C per minute, Hanchett teaches of a cold-water dispersible modified sago starch prepared by substantially the same method as instantly claimed (Abstract and paragraphs 0012-0017 and 0020-022); Hanchett teaches that the starch has a viscosity

of about 0-2600 Brabender units (Figure 4); Hanchett teaches that the starch has a Brabender Viscosity Differential (BVD), measured between about 80C and about 90C of about 15 BVD (Figure 4); Hanchett teaches the Brabender viscosity is measured by heating the starch from about 22C to about 92 C at a rate of 4C per minute and then cooling to 25C at a rate of 1.5C per minute (paragraph 0051). Hanchett, however, does not teach the Brabender viscosity of the starch when measured by rapidly heating to 50C and then further from 50-95C at a heating rate of 1.5C per minute. One of ordinary skill in the art at the time the invention was made would expect the starch as taught by Hanchett, which is treated by a substantially identical process as the starch as instantly claimed to have the same properties of the starch as instantly claimed when tested in the same manner. Furthermore, it is noted that although Hanchett teaches of a different method of testing the Brabender viscosity, Hanchett teaches of testing the viscosity at the same temperatures as instantly claimed, with the same rate of temperature change as instantly claimed, and the Brabender differential as taught by Hanchett of about 15BVD is within the instantly claimed Brabender differential of about -35BVD to about 25BVD.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 11-13, 15, 23, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hanchett et al (US 2002/0102344 A1). The references and rejection are incorporated herein and as cited in the office action mailed June 28, 2007.

Specifically regarding the newly added limitation that the Brabender viscosity is measured by rapidly heating to 50C and then further from 50-95C at a heating rate of 1.5C per minute, Hanchett teaches of a cold-water dispersible modified sago starch prepared by substantially the same method as instantly claimed (Abstract and paragraphs 0012-0017 and 0020-022); Hanchett teaches that the starch has a viscosity of about 0-2600 Brabender units (Figure 4); Hanchett teaches that the starch has a

Brabender Viscosity Differential (BVD), measured between about 80C and about 90C of about 15 BVD (Figure 4); Hanchett teaches the Brabender viscosity is measured by heating the starch from about 22C to about 92 C at a rate of 4C per minute and then cooling to 25C at a rate of 1.5C per minute (paragraph 0051). Hanchett, however, does not teach the Brabender viscosity of the starch when measured by rapidly heating to 50C and then further from 50-95C at a heating rate of 1.5C per minute. One of ordinary skill in the art at the time the invention was made would expect the starch as taught by Hanchett, which is treated by a substantially identical process as the starch as instantly claimed to have the same properties of the starch as instantly claimed when tested in the same manner. Furthermore, it is noted that although Hanchett teaches of a different method of testing the Brabender viscosity, Hanchett teaches of testing the viscosity at the same temperatures as instantly claimed, with the same rate of temperature change as instantly claimed, and the Brabender differential as taught by Hanchett of about 15BVD is within the instantly claimed Brabender differential of about -35BVd to about 25BVD.

Claims 3-7 and 16-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hanchett et al (US 2002/0102344 A1) in view of Fennema ed. (Food Chemistry, 3rd Edition). The references and rejection are incorporated herein and as cited in the office action mailed June 28, 2007.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hanchett et al (US 2002/0102344 A1) in view of Saowakon et al. (Suitability of sago starch as a base for dual-modification). The references and rejection are incorporated herein and as cited in the office action mailed June 28, 2007.

Response to Arguments

Applicant's arguments filed September 27, 2007 have been fully considered but they are not persuasive.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., water fluidity, granulation of the pregelatinized starch, the order in which the starch is treated, i.e. the starch as first converted and then inhibited is not instantly claimed) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Specifically regarding granulation of the starch, applicant claims that the modified starch is granulated (claim 13), applicant does not claim that the starch that has been modified through pregelatinization has been granulated; i.e. the granulated starch as instantly claimed is the starch after a modification, not specifically after modification by pregelatinization. Specifically regarding the order in which the starch is treated, applicant recites in claim 11, "converting the sago starch", "inhibiting the sago starch", and "pregelatinizing the sago starch"; the instantly claimed invention does not require that the process steps be performed in a particular order.

Applicant's argument that the BVD is measured during cooling and not during a heating cycle has been addressed above as a new limitation.

Applicant argues that Hanchett does not teach of a BVD between about 80C and 90C from about -35BVD to about 25 BVD. Applicant is referred to Hanchett, Figure 4 in which Hanchett teaches the BVD between 80C and 90C is about 15BVD, Which falls within applicant's claimed range.

Applicant argues that the reference teaches of a large number of combinations for treatment of the starch. This argument is not convincing as the reference teaches of converting the starch with hydrogen peroxide (paragraph 0020), of inhibiting the starch as instantly claimed (paragraphs 0012, 0013, 0018, 0019), and of pregelatinizing the resultant starch (paragraph 0022) in combination with each other as instantly claimed.

Applicant argues that the starch as taught by Hanchett is different from that of the instantly claimed starch because of the gelation properties of the starch (Page 7 of Remarks). Applicant's argument is not convincing as the starch as taught by Hanchett

is produced by a similar method to the starch as instantly claimed, thus one of ordinary skill in the art would expect them to be the same, as stated in the previous office action. Applicant's arguments are mere statements which are not supported by evidence showing the difference that applicant argues is present between the instantly claimed invention and the invention as taught by Hanchett.

It is noted that applicant states that the hydrogen peroxide of the present invention is used to convert starch not to bleach it, as is also taught by Hanchett. As stated in the previous office action that hydrogen peroxide was known bleach, and thus while converting the starch with hydrogen peroxide one of ordinary skill in the art would also expect the starch to be bleached.

Applicant's arguments filed 9/27/07 have been fully considered but they are not persuasive.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kelly Mahafkey whose telephone number is (571) 272-2739. The examiner can normally be reached on Monday through Friday 8am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Keith Hendricks can be reached on (571) 272-1401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/Lien Tran/
Primary Examiner
Group 1700

Kelly Mahafkey
Examiner
Art Unit 1794

A handwritten signature in black ink, appearing to be 'Kelly Mahafkey', written in a cursive style.